NAVAL HEALTH RESEARCH CENTER

FIRST-TERM ATTRITION IN THE NAVY:

CAUSES AND PROPOSED SOLUTIONS

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SUMMARY

More than 18% of Navy recruits leave the service within the first 6 months, and more than 37% are discharged before the end of their first term. By reducing the attrition rate, the Navy could slash costs for recruiting, training, equipment, and related expenses. For example, the General Accounting Office estimates that in fiscal year 1996, the joint services lost an investment of $39 million by recruiting and training enlistees who separated before they had completed 6 months of service. The purpose of this research was to identify major individual and organizational factors that cause attrition, and to develop a set of interventions or recommendations for reducing attrition. Interviews were conducted with Navy personnel to determine perceptions of the types of individuals who are most likely to attrite and the organizational factors that increase attrition. Results from the interviews were then combined with other data, including Navy documents such as official instructions and press releases, government technical reports and briefings, media sources such as *The Navy Times*, and a variety of unofficial Navy surveys and meeting notes that were volunteered by respondents during interviews.

The following factors play an important role in boot camp attrition:

1. **Inadequate preparation for transition from civilian life to recruit training**, including incorrect or unclear expectations of military life, and poor civilian physical conditioning and lifestyle.
2. **Failure to adapt to recruit training** for reasons such as low stress resistance, homesickness, malingering, and immaturity.
3. **Discipline problems** stemming from disrespect for authority and disobedience of rules and regulations.
4. **Medical/physical problems**, many of which were not detected during earlier medical exams.
5. **Fraudulent enlistment.**
6. **Screening deficiencies**, including failure to detect mental disorders and personality disorder.
7. **Drug use.**

The following factors play an important role in "A" school *nonacademic* attrition. (Academic attrition was not studied because personnel who attrite for academic reasons typically stay in the Navy).

1. **Abrupt transition from recruit training.** Sailors who trade the rigid control of boot camp for the relative freedom of "A" school sometimes abuse off-base liberty, alcohol, and drugs.
2. **Lack of motivation** because of dissatisfaction with "A" school assignment. Relationship and financial problems are also a common source of poor motivation.
3. **Discipline problems** stemming from disrespect for authority and inability to follow rules and regulations.

The following factors play an important role in fleet attrition:

1. **Easy to get out.**
2. **Low pay, poor career opportunities**. Many Sailors are unhappy with their pay and assignments, and perceive better prospects outside of the Navy. Sailors are also troubled by a lack of advancement opportunities.
3. **Family issues** related to parenthood, childcare, and family separation.
4. **Ship assignment**, including stressful life on ships, heavy inport work load, berthing on ships, lack of sea pay for junior Sailors, undesirable ports, long hours, and food service assignment during the initial sea tour.
5. **Inadequate leadership**, including deficient mentors/commanders and lack of recognition for achievements.
6. **Personal characteristics** (including immaturity) that make some Sailors unsuited for teamwork.
7. **Low quality of life (QOL).**
8. **Indebtedness.**
9. **GENDET issues** (referring to a number of demoralizing factors specific to General Detail Sailors)
10. **Discipline problems** stemming from lax standards, disrespect for authority, inability to follow rules and regulations, drug use, and other forms of misconduct.
11. **Lack of fairness** due to perceived favoritism for married couples and women.

In addition to the preceding issues, an examination of accession screening procedures revealed that the Navy conducts only cursory psychological screening of applicants, despite costly personnel losses for psychological problems and misconduct. Based on all the evidence assembled for the current research, better psychological assessment is one of the most effective actions that the military could take to reduce attrition. There is a critical need to improve Military Entrance Processing Station screening for overall mental heath. In addition, interviews with Navy

personnel suggest that research on new tests should focus on the assessment of applicants' maturity, stress-resistance, social competence, willingness to follow rules, and motivation for enlisting. An examination of the literature on these topics indicates that some have been more thoroughly studied than others.

BACKGROUND

First-term attrition, defined as failing to complete the contracted first enlistment term, is one of the most serious and costly personnel problems faced by the U.S. military, including the Navy (Laurence, Naughton, & Harris, 1996). According to the General Accounting Office (GAO), as of the mid-1990s more than 15% of Navy recruits left the service within the first 6 months, and approximately 32% of Navy recruits were discharged before the end of their first term (General Accounting Office, 1997,1998a). The GAO estimated that in fiscal year 1996 alone, the Services lost an investment of $39 million by recruiting and training enlistees who separated before they had completed 6 months of service (General Accounting Office, 1998a). Since the publication of the GAO reports, attrition has increased still further, and first-term Navy attrition now stands at approximately 37%; up substantially from the earlier level of 32% reported by the GAO. In addition to the growing financial impact of increased attrition, early personnel losses place greater work load and strain on remaining staff and harm morale and readiness. Thus, the negative effects of attrition often ripple throughout the armed forces, especially in times of high operational tempo. In addition, because attrition creates a need for replacement personnel, it exacerbates demands on Recruiters who already have tremendous difficulty making recruiting goals.

While reductions in attrition have been a Navy priority for a number of years and many counter-attrition initiatives have been implemented (particularly at the Great Lakes Naval Training Center), attrition rates continued to climb throughout the late 1990s. According to the GAO (1998a), efforts to combat attrition have been handicapped by inadequate data on why enlistees separate early:

DoD and the services need a better understanding of the reasons for early attrition to identify opportunities for reducing it. Currently, available data on attrition do not permit DoD to pinpoint the precise reasons that enlistees are departing before completing their training (p. 4).

The services' attrition data exist largely in the form of official separation codes that are assigned at the time of discharge. For example, "fraudulent enlistment," "convenience of the government," and "pattern of misconduct" are all codes that might be assigned to a Sailor. Unfortunately, attrition data in the form of separation codes do not provide a knowledge base for the design of counter-attrition strategies. For example, the GAO concluded that separation codes are often used in an inconsistent and subjective manner, and that specific codes are sometimes chosen for administrative simplicity rather than accuracy. The GAO's findings agree with other work, such as a RAND study (Klein, Hawes-Dawson, & Martin, 1992) that compared the separation codes assigned to military personnel with the information entered into the official personnel folders of those same individuals. The RAND authors reported that separated personnel often exhibited multiple conduct and performance problems, any one of which could have been chosen as a reason for initiating the separation process. The separation code that was officially assigned often appeared to be chosen either for reasons of administrative simplicity, or because it reflected less adversely on the individual. Thus if these authors are correct,[1] inconsistency, subjectivity, and inaccuracy are all reasons that separation codes rarely provide an adequate basis for attrition interventions.

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[1] Inconsistent use of separation codes is likely to be a greater problem in the fleet (due to dispersion) than at centralized points such as recruit training. The GAO and Rand studies did not make this distinction.

Even if the RAND and GAO authors are wrong about how separation codes are assigned, there is at least one remaining reason that separation codes are a poor starting point for counter-attrition programs: The codes are, probably by necessity, simply broad labels rather than clear descriptions of events or individuals. Even when the separation codes accurately describe the general type of issue leading to separation, they omit the important details, i.e., what, when, where, and why. It is extremely difficult to reduce a largely behavioral problem like attrition without knowledge of specific behavior and its motivation.

The purpose of the present investigation is to develop more accurate and descriptive information about the major causes of attrition in the United States Navy, and to identify potential solutions. To supplement separation codes as a source of attrition data, this effort involved a number of site visits to Navy commands for discussions of actual attrition cases with a wide range of active-duty personnel, as described later in the report. Additional sources of data for the current effort include published reports, statistical databases, published and unpublished surveys, news media accounts, and Congressional hearings. From these various data sources, common themes or problems were identified, and potential solutions were sometimes proposed.

Before describing more thoroughly the methods and results of the present study, however, it is important to note that major reasons for attrition often differ as a function of career stage (Military Personnel Plans, Policy and Career Progression (N-13), 1997). It is appropriate, therefore, to begin with a review of the key events and stages of the typical first term of enlisted military service, because these stages provide the setting in which attrition occurs.

OVERVIEW OF THE FIRST ENLISTMENT TERM

This section briefly describes the key aspects of each major stage of the first enlistment term, so that attrition can be understood in its proper context. The four major stages are (1) preshipping, (2) recruit training (boot camp), (3) skill training, and (4) fleet duty.

Preshipping. The preshipping stage has three major components: (1) interviews and assessments at the Recruiters' offices, (2) medical and psychological examinations at the Military Entrance Processing Station (MEPS), and (3) the postenlistment holding process, known as the Delayed Entry Program (DEP), that is used when an enlistee cannot immediately ship for basic training. The vast majority of enlistees enter DEP for at least a short period of time. Regarding the first component, an important function of the Recruiter is to determine whether the applicant meets basic eligibility standards. To meet basic standards, an applicant must, for example, be free of disqualifying medical conditions such as asthma, severe allergies, and flat feet, must not have a pattern of drug use, must have no (or relatively few) prior legal problems, and must be within the legal age limits (17-34 years). If the applicant has not yet taken the Armed Services Vocational Aptitude Battery (ASVAB), the Recruiter will administer a short version to confirm that the individual meets standards for cognitive ability scores. Enlistees must be citizens of the United States or immigrant aliens with immigration and naturalization papers. If the applicant appears qualified based on the preceding criteria, the Recruiter will arrange for that individual to be screened at the nearest MEPS.

The primary mission of MEPS is to examine applicants' aptitude, physical, and moral qualifications in accordance with eligibility standards established by the services, and to enlist those applicants accepted by a sponsoring military service. Aptitude is assessed by administration of the full-length ASVAB. Physical qualifications are determined by gathering a comprehensive

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health history, administering an on-site medical exam, and reviewing preexisting medical documentation. Legal requirements are determined by a combination of background questions and criminal record checks, including background checks through the Federal Bureau of Investigation (General Accounting Office, 1999). MEPS also conducts quality reviews of all enlistment documents, and interviews applicants for the purpose of assisting the recruiting services in the prevention of fraudulent entry into the military. Special purpose testing, such as for nuclear field candidates, is also conducted at MEPS.

Once applicants have successfully passed through MEPS screening, they work with a service classifier (a military career information specialist) who will help them select a military occupational field, based on their aptitude scores, personal interests, and the needs of the military. Also, an enlistment date is selected. Enlistment dates may be selected up to 1 year in the future to coincide with personal needs and job training openings (see next paragraph). If the negotiations are satisfactory and the individual wishes to enlist, MEPS personnel will conduct a final preenlistment interview designed as a check on fraudulent entry into the armed services. Any adverse information obtained from applicants will be furnished to the appropriate MEPS examining officer and/or recruiting office for resolution. Barring discovery of adverse information in the final interview, the individual may take an oath of enlistment and thereby become legally obligated to serve in the military.

After going through the enlistment process at a MEPS, Navy enlistees usually are placed in the DEP, often for purposes of finishing high school. Recruits in DEP are guaranteed training assignments. During the DEP period, enlistees are encouraged to prepare for boot camp by attending training meetings with their Recruiter. At the end of their DEP period, individuals must report to MEPS for final processing and transportation to recruit training.

Recruit Training. In 1994, Recruit Training Command (RTC) Great Lakes became the Navy's only RTC or boot camp. When service members arrive at RTC, they are grouped into divisions and assigned a Recruit Division Commander (RDC) for the next 8 weeks. The RDC, typically a Chief Petty officer or senior Petty officer, is the person most directly responsible for molding the recruits into Navy men and women.

As soon as recruits arrive, training and processing begin. Over the first few days, recruits complete a number of required forms; are tested for drug use; receive medical and dental exams along with inoculations for protection from a variety of diseases; and are given haircuts, health counseling, and swim tests. They also participate in the Moment of Truth, which represents a final chance for recruits to disclose previous drug use or other problems that might affect eligibility for naval service. Much of the initial medical data collection is performed via a comprehensive, computer-based questionnaire known as the Sailor's Health Inventory Program (SHIP) (Mittelman & Bayer, 1998).

After in-processing, the recruits receive instructions on how to make their beds and indoctrination on fire safety requirements. The first 3 weeks of recruit training are extremely demanding. The work load is heavy and the recruits must adjust to a completely new way of life, including living in 1000-bed barracks and eating at the recruit galleys. Classroom instruction, military drill, physical fitness training, and instruction by the RDC leave the recruit with little free time. Instruction covers topics such as standards of conduct, uniforms and grooming, core values, chain of command, watchstanding, money management, naval history, and first aid. All recruits must pass regular uniform and military drill inspections plus inspections of lockers and barracks. Routine tests on academic course work and physical fitness are also given. During the third week, divisions enter into the competitive aspect of training. Excellence in academic achievement, military drill, cleanliness and athletics all count toward earning honor flags. The

competition is designed to encourage teamwork and develop pride in achievement. In addition to normal classroom instruction periods, the recruits may spend hours learning fundamentals of small arms, seamanship, swimming, water survival, and fire-fighting.

In the seventh week of basic training, recruits undergo a final evaluation, called Battle Stations, that involves physically challenging simulations of actual past emergencies on board Navy ships. These simulations are designed to build confidence, teamwork, and the use of core values in the decision-making process. For example, in the Emergency Egress Chamber simulation, recruits enter a smoke-filled room wearing a breathing apparatus. A team of recruits is given 5 minutes to search the smoke-filled chamber, locate all injured personnel and remove them. Approximately 12 Battle Stations simulations are currently run.[2]

Skill Training. All Sailors completing boot camp are assigned some form of advanced skill training before transferring to their first assignment. Many recruits will receive specialized technical training at "A" schools immediately following recruit training. The largest single portion of "A" school instruction takes place at Service School Command, Great Lakes. The duration of instruction varies greatly, depending on the complexity of the training required for a particular occupational field. For example, while Quartermaster "A" school lasts 6 weeks, Electronic Technician "A" school lasts approximately 27-33 weeks. In addition to the classroom technical training received by students, A-school assignment includes daily marching drills, physical training, inspections, and other activities designed to reinforce the military training received at the RTC (Mayfield, 1999).

Other Sailors, who are not yet assigned to a technical specialty, are often referred to as

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[2]Much information on recruit training can be found at the RTC website, http://www.ntcgl.navy.mil/rtc.htm

General Detail (GENDET) personnel. These Sailors may receive brief general coursework in aviation, seamanship, or engineering before transferring to apprenticeship positions in the fleet. GENDET personnel can later apply for an "A" school seat (a process known as "striking"), depending on their performance and schoolseat availability.[3]

Skill training marks a considerable departure from recruit training in several ways. First and most obviously, instruction emphasizes skills required by specific jobs, rather than general military tasks and responsibilities. Along with the change in the type of instruction, however, comes a gradual increase in personal liberty. Unlike recruits in RTC, students enrolled in some type of skill training may depart their military base, and they may engage in a variety of independent activities. "A" school is therefore a transition from the total military control at RTC to levels of individual freedom and responsibility in the fleet. As will be discussed later, a number of programs are in place to help ensure the success of this transition.

Fleet Duty. After skill training, the remainder of the first enlistment term is typically spent in a combination of sea and shore assignments that vary tremendously in the work environment and demands. The length of fleet duty can differ by several years between individuals, since enlistment length depends on the program for which the applicant is accepted. The ratio of time spent at sea to time spent ashore also varies based on a number of factors, including the individual's rating (job specialty). Some ratings (e.g., electronic technicians, machinist mates, and various aviation-related specialties) are fairly sea-intensive and do not easily lend themselves to shore duty. Thus, individuals who fill such sea-intensive positions are likely to spend relatively less time on shore. Navy officials regularly review and modify sea/shore rotation policies for enlisted personnel.

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[3]GENDETs are also sometimes referred to as "Undesignated" or "Nonrated" personnel.

For most first-term enlisted personnel, a landmark event is the initial sea tour. Sailors reporting to their first ship must typically complete a 120-day period of demanding kitchen labor known officially as food service assignment (FSA) and unofficially as "mess cranking." As will be discussed later, FSA represents for many Sailors a frustrating time when they are unable to use their recently acquired technical training. Shipboard life is a considerable challenge for many individuals, particularly due to such every day nuisance factors as low levels of privacy, inadequate berthings, and problems with bathroom facilities.

RECENT ATTRITION RATES

As was stated earlier, attrition varies as a function of career stage. In general, while attrition from the fleet is the largest single component of overall attrition, personnel attrite at the fastest *rate* (i.e., number lost per week) during the 8-week recruit training stage. Moreover, while drug use and medical and psychological problems play a dominant role in RTC attrition, fleet attrition stems from a number of additional reasons, including misconduct, family hardship, and obesity.

Attrition in relation to career stages is briefly discussed below. Before presenting these data, however, it should be reiterated that the official reasons for separation, though they are the basis for the current section, lack detail. To fully understand attrition, analysis of separation codes must be done in conjunction with examination of specific cases.

While actual attrition rates vary from year to year, the following is accurate as a description of general trends. All data come from analyses by Bureau of Navy Personnel (BUPERS) and the Great Lakes Naval Training Center.

Recruit Training. Of all recruits shipped to RTC, approximately 17% drop out before completion of basic training. Based on fiscal year 1999 data, the most common reasons for RTC attrition are

psychological problems (39% of all recruit attrition cases), drug use (30%), medical problems (24%), and "other" (e.g., lack of motivation; 6%). For much of the 1990s, drug use was the most common reason for attrition, accounting from more than one third of boot camp attrition. This number has declined from previous levels, however, as drug screening of Navy applicants has been initiated in MEPS. It is now more likely that habitual drug users will be caught prior to shipping to RTC, although problems with detection of drug use remain an issue (as will be discussed in a later section).

Skill Training ("A" school). About 7% of recruits who start "A" school training fail to complete it. However, nearly two thirds of these attrites stay in the Navy as GENDETS; only about one third leave the Navy completely at this point. The primary reasons for "A" school attrition for fiscal year 1999 were desertion (32% of all "A" school attrition cases), personality disorders (27%), drug abuse (12%), medical problems (9%), alcohol rehabilitation (5%), and misconduct (5%).

Fleet Duty. Of all Sailors who enter the fleet (either as GENDETS or "A" school graduates), about 25% attrite prior to the end of their enlistment term. The main reasons for attrition from the fleet are misconduct (28% of all fleet attrition; includes both serious offenses and patterns of minor misconduct), medical problems (17%), drug use (15%), personality disorders (9%), and not meeting the Navy's physical readiness training (PRT) or weight standards (5%).

RECRUIT QUALITY AND ATTRITION

Service policies on enlistment standards clearly have a strong impact on attrition. For example, evidence suggests that attrition rises when the Navy accepts more lower mental group

and non-high school diploma graduate (HSDG) applicants in order to make recruiting goals (Laurence, Naughton, & Harris, 1996). Table 1 shows the relationships between attrition at the 1-year mark and a number of recruit characteristics that are currently recorded during the application process, including mental ability and educational level. Mental ability is measured by Armed Forces Qualification Test (AFQT) scores, with AFQT category 1 (CAT–1) the highest possible category, and AFQT category 3B (CAT-3B) the lowest category from which applicants are accepted. The data, from combined FY95-FY98 accessions, show that enlistees with relatively high mental ability attrite at the lowest rates.

Table 1 indicates that, along with mental ability, the type of educational credential attained (if any) has a strong relationship to attrition. Historically, much attention has been placed on attrition problems with nondiploma and general educational development (GED) diploma personnel (e.g., Buddin, 1984; Eitelberg, Laurence, Waters, & Perelman, 1984; Laurence, Naughton, & Harris, 1996), a concern reinforced by data shown in Table 1. It should be noted, however, that attrition problems also exist with *adult education* graduates, who are individuals who drop out of high school and (sometimes at the urging of a Recruiter) later join a continuing education program to obtain their degree. As the Table shows, these individuals have a relatively high rate of attrition (28.8% vs. 20.8% for HSDGs).

Somewhat disturbingly, more recent 1-year attrition rates (for FY98 accessions only) suggest that the quality problem with adult education graduates is worsening, and that the Navy should carefully monitor the numbers and performance of these personnel. Specifically, FY98 1-year attrition rates were 22% for HSDGs, 33% for adult education graduates, 34% for GED accessions, and 33% for individuals with no degree whatsoever (T. Trent, personal communication 16 May 1999). These data call into question the Navy practice of combining

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adult education graduates together with high school diploma graduates into a prime (i.e., most desired) recruiting category.

Attrition rates also vary as a function of waiver status. As discussed previously, a number of recruit characteristics, largely moral and medical, require a waiver prior to enlistment. Applicants require a "moral waiver" when they are currently facing a criminal charge or when they have an adverse juvenile record. Examination of individuals with civil offense records is intended to screen out those considered likely to be disciplinary problems after entry into the armed forces. MEPS commanders may waive conviction of three or more minor nontraffic offenses or one or more felonies or "other (nonminor)" misdemeanors (General Accounting Office, 1999). Waivers are less likely to be granted when criminal convictions or adverse juvenile adjudications reflect frequent difficulties with law enforcement agencies, a history of antisocial behavior, drug abuse, sexual misconduct, or questionable moral character. MEPS waiver policies are described in detail in Chief of Naval Operations Instruction 1100.44B, dated 15 April 1986.

Moral waivers are not the only waiver category processed by the Navy, although they are by far the most frequent. Other common categories are shown in Table 1, which also lists attrition rates as a function of waiver/nonwaiver status. As can be seen, applicants admitted under the various waiver programs (with the exception of medical waivers) tend to have higher overall attrition rates than applicants with no waiver (26.3% vs. 20.5% attrition, respectively).

Table 1 also shows a number of other applicant characteristics in relation to attrition. As can be seen, when comparing males and females, females have slightly lower attrition. Applicants with dependents attrite at a slightly higher rate than applicants with no dependents. Finally, there are some differences in attrition as a function of ethnicity, with the rate for Asians being exceptionally low.

Table 1: FY95-FY98 Applicant Characteristics and 1-Year Attrition Rates

	Number Enlisted		
	Completed	Attrited	%Attrition
TOTAL	116,275	32,423	21.8
Mental Ability			
AFQT CAT-1	6591	1227	15.7
AFQT CAT-2	43,376	10,786	19.9
AFQT CAT-3A	28,352	8506	23.1
AFQT CAT-3B	37,955	11,904	23.9
Education Credential			
Baccalaureate	1486	251	14.5
Associate	838	150	15.2
1 semester college	2024	913	31.1
High school diploma	98,823	25,963	20.8
Adult education	2579	1043	28.8
GED	2885	1633	36.1
No credential	1799	1051	36.9
Accession Waiver			
Moral	13,006	4816	27.0
Medical	2862	786	21.5
Dependents	1777	636	26.4
Skill qualification	1686	566	25.1
Prior disqualification	1475	580	28.2
Education	1204	563	31.9
Other	1759	561	24.2
All waiver categories	24,189	8612	26.3
No Waiver			
No accession waiver	92,086	23,811	20.5
Gender			
Male	96,817	27,331	22.0
Female	19,458	5092	20.7
Dependents			
0	113,565	31,437	21.7
1	1775	662	27.2
2 or more	935	324	25.7
Race/Ethnicity			
White	82,793	24,271	22.7
Black	24,423	6351	20.6
Hispanic	15,634	3634	18.9
Asian	5873	788	11.8
American Indian	2112	780	27.0
Other	1035	223	17.7

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Summary. Examination of Table 1 indicates that it is fairly easy to suggest recruit quality factors that may be linked to attrition. However, it must be kept in mind that the Navy would fall far short of current recruiting goals if, for example, no GED applicants were accepted or no waivers were granted. Second, and perhaps more importantly, an examination of the table reveals that *the majority of attrites began as "good" applicants (i.e., the majority of attrites are nonwaiver accessions who have at least a high school diploma)*. This is true, in part, because the services place limitations on the number of the non-diploma accessions (currently 10% maximum in the Navy). Thus, the problem of attrition cannot be fully understood by analyzing factors like educational credential, although such factors are an important part of recruiting goals. Rather, efforts to reduce attrition rates need to be focused on determining why so many of the Navy's good quality enlistees do not complete their first term (General Accounting Office, 1998b).

In the current paper, we undertake an in-depth examination of the causes of Navy attrition, and we attempt, where possible, to also describe interventions to reduce attrition.

METHOD

The current study used a combination of approaches to determine the major causes of Navy attrition. Particular emphasis was placed on discussions with active-duty personnel, because previous attrition research has been disproportionately database-driven. That is, many past attrition studies have relied exclusively on the analysis of administrative databases to determine both frequency of various separation codes and demographic factors that correlate with attrition. Such studies, which are inherently limited by the existing data, may or may not capture day-to-day issues, incidents, and problems in military life that can contribute to poor performance and

early separation. Moreover, studies based on personnel databases are unlikely to uncover organizational variables that affect attrition.

Along with soliciting the opinions of active-duty personnel, other data sources included Navy documents such as official instructions and press releases, government technical reports and briefings, media sources such as *The Navy Times*, and a variety of Navy surveys and meeting notes that were volunteered by respondents during interviews. For example, one Petty Officer provided the results of the quality of life survey he conducted at his command. In addition, a Master Chief provided the results of a brainstorming meeting at which a number of Command Career Counselors discussed possible reasons for enlisted attrition.

In planning the site visits, an attempt was made to visit commands that would be representative of the Navy as a whole. It was determined that representative commands should include a recruiting office, a MEPS, the Recruit Training Command, Service School Command at Great Lakes, an aircraft carrier, a large or medium amphibious ship, a submarine, several Navy bases, an aircraft intermediate maintenance depot, a personnel support detachment, one or more naval hospitals, and one or more Transient Personnel Units. These goals were achieved. Since many of these commands could be found in the San Diego vicinity, a large amount of data collection was conducted in San Diego. The perspective obtained reflects broad Navy issues rather than narrow San Diego Navy issues because many of the interviewed personnel emphasized their experiences during ship deployments and at other duty stations (both continental U.S. and elsewhere). The other major data collection site was Naval Training Center, Great Lakes, which included RTC, the Service School Command, Transient Personnel Unit, and the Naval Hospital at Great Lakes.

Discussions were conducted largely with senior enlisted personnel (E-7 to E-9). A number of officers (O-4 to O-6) were also interviewed, including several Commanding Officers, as were junior enlisted personnel, including young Sailors being separated from the Navy. Figure 1 shows the breakdown of the interview sample (N = 100) by paygrade.

Figure 1: Number of respondents by paygrade
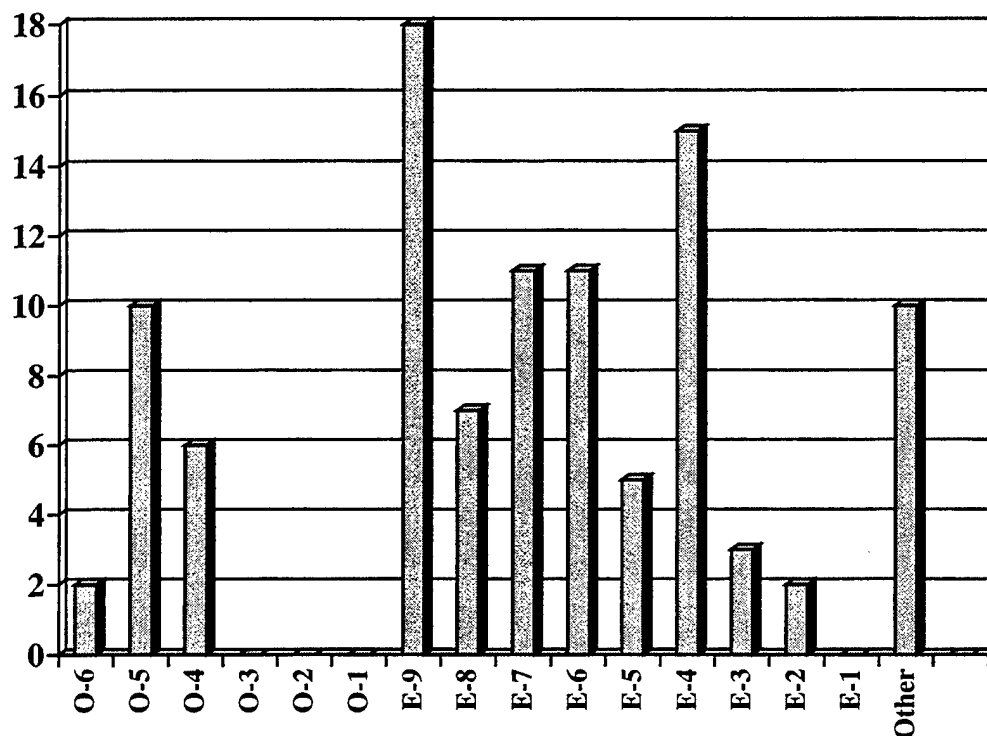
Most interviews with senior enlisted personnel and officers began with a series of questions regarding typical reasons for attrition during recruit training, "A" school (skill training), and in the fleet. Follow-on questions asked about specific examples of incidents leading to early separation, the characteristics of ideal recruits and typical "problem" recruits, the impact of leadership on attrition, various specific reasons for separation (e.g., drug use, misconduct), and other related matters including GENDET status, race, and gender. Junior Sailors were asked

similar questions, along with being asked about perceptions of fairness in the Navy, the role of background experiences in a successful Navy career, and what they perceived as the more difficult aspects of Navy life.

The exact interview questions were changed a number of times, as it became clear that some lines of questioning were more fruitful than others. Finally, some military personnel wished to discuss specific aspects of their own careers. There was, therefore, variation in topics across individuals.

The views of Navy personnel were then integrated with other data (e.g., briefings, published studies, statistical analyses). Several comments are warranted regarding the format of the Results section. First, because of the diversity of information obtained (e.g., statistical, anecdotal, and media), the most straightforward way to present the results is as themes that cut across data sources. Second, the results are organized around Navy career stages rather than some alternative organizational scheme, to highlight differences in reasons for attrition at different times in Sailors' first enlistment terms. In summary, the results are presented as a broad-brush picture of the problems experienced by young Sailors as they advance through their careers.

Finally, an attempt was made, sometimes in consultation with Navy personnel interviewed for the project, to identify potential solutions to the problems cited. It is quite possible that some of these proposed solutions are impractical or politically unrealistic. Other proposals may require extensive study before implementation. Nevertheless, there is value in developing a set of candidate recommendations for discussion.

On a positive note, the Navy has recently initiated several programs and policies that address some of the problems identified during the current effort. We attempt to describe these developments wherever possible, based on currently available information.

RESULTS AND DISCUSSION

PHASE 1: RECRUIT TRAINING. Table 2 shows a number of important issues that contribute to attrition in recruit training according to participants in the current study. Many of these issues emerged in response to the following interview question: "In your view, what are some important reasons for involuntary separation during boot camp?" As noted previously, however, other data sources were also consulted. Overlap across response categories is apparent in some cases. For example, "failure to adapt" (2.2) and "discipline problems" (2.3) may both be related to "screening deficiencies" (2.6). Each issue in the table will be discussed in the following text.

Next to each issue is one or more possible targeted approaches to reducing attrition, some of which also emerged in the interviews, and some of which resulted from our own analyses.

Table 2: Causes of Recruit Training Attrition

Issue(s)	*Potential Solution(s)*
2.1 Inadequate preparation for transition from civilian life to recruit training: 2.1.1 Unclear expectations 2.1.2 Poor physical conditioning and lifestyle	Provide continued coaching, physical exercise, mentoring, education, and indoctrination during DEP. Stress core values (honor, courage, commitment) rather than employment.
2.2 Failure to adapt to recruit training 2.2.1 Low stress resistance 2.2.2 Homesickness 2.2.3 Malingering 2.2.4 Immaturity	Get recruits "over the hump." Attrition moratorium (Boorda initiative). Create disincentives for early departure, including adverse discharge, compensation for government costs.
2.3 Discipline problems 2.3.1 Disrespect for authority 2.3.2 Disobedience of rules and regulations	Toughen standards of conduct. Improve background screening. Compensation for government costs.
2.4 Medical/physical problems	Implement DEP physical fitness programs. Evaluate medical waiver policies. Redesign medical history questionnaires.
2.5 Fraudulent enlistment	Review "Moment of Truth" program.
2.6 Screening deficiencies 2.6.1 Mental disorders 2.6.2 Personality disorder	Improve MEPS psychological screening.
2.7 Drug use	Preshipping drug test

2.1 Inadequate preparation for transition from civilian life to recruit training. Many military personnel interviewed for this project indicated that recruits are often mentally and physically unprepared for boot camp. Moreover, unprepared recruits are more likely to attrite, because they experience greater adjustment problems and stress.

Lack of *mental* preparation often stems from unfamiliarity with the military. Recruits entering basic training vary greatly in their understanding of military life. Those with military friends or family members often have a fairly realistic expectation of what they will face, based on first-person accounts of boot camp and other aspects of military service. Some new recruits, however, have only vague prior knowledge of military life. The latter recruits may find the experience unusually jarring and stressful, leading to potential adjustment problems and attrition.

A second aspect of mental preparation is tied to the individual's motivation for enlisting. A number of senior enlisted personnel stated that people should join the military because they *like* the military (implying also that they are familiar with it), and not because they *dislike* the alternatives (e.g., a bad job or a poor home environment). Respondents felt that too many individuals simply use the military as a way to escape a worse fate. While it is uncertain that Recruiters should or would discourage qualified applicants simply because of doubts about their motivation for enlisting, there may nevertheless be value in performing additional research on this topic in order to determine the strength of the relationship between reason for enlisting and eventual success.

An additional aspect of mental preparation includes one's prior experiences with discipline and high standards. A number of Navy personnel expressed the view that military recruiting is adversely affected by the growing number of latchkey children and children raised in single-parent households. Indeed, many personnel, reflecting on their own experiences with shipmates and subordinates, expressed the view that children of traditional 2-parent families were best

suited for military service because they receive more consistent guidance and discipline at home, which in turn makes them more receptive to the chain of command in the military. According to this view, the erosion of the disciplinary structure associated with traditional families has contributed to attrition by producing a generation that is more alienated, impatient, self-centered and less accustomed to authority and demands for personal responsibility.

.Trends mentioned in our interviews have, of course, already been the subject of much public debate. For example, a recent study by the President's Council of Economic Advisors, cited in a presidential commencement address to Grambling State University in May 1999, found that the percentage of married mothers in the work force has nearly doubled in a generation, from 38% in 1969 to 68% in 1996. Because more parents in all types of households are working longer hours, and because the number of single-parent families has grown, parents in the average family now have 22 fewer hours each week to spend with their children. By the time a contemporary child reaches the age of 18, those 22 hours a week amount to over 2 additional years of parental absence.

Broad social trends, though often controversial, undoubtedly have an impact on preparedness for (and the attractiveness of) military life. To successfully assimilate recruits into the military, the dramatic nature of the civilian-to-military transition for many contemporary individuals must be acknowledged and incorporated into strategies for reducing attrition.

Along with a lack of psychological preparation for recruit training, a lack of *physical* preparation was also frequently cited as a reason for attrition. Several of those interviewed for the research indicated that most recruits are physically unfit prior to boot camp. This problem has become more important in recent years as the population has become more sedentary and obese. For example, a recent survey indicates that one quarter of all U.S. children now watch 4 or more hours of television each day, and that television watching is linked with obesity (Andersen,

Crespo, Bartlett, Cheskin, & Pratt, 1998). Among high school students, daily attendance in physical education declined from approximately 42 percent to 25 percent during the early 1990s. Smoking is another reason that some recruits are physically unprepared for boot camp. Many preservice smokers do not attempt to quit prior to shipping despite the fact that boot camp is a smoke-free environment. The wear and tear imposed by recruit training is likely to be exacerbated in recruits who are simultaneously experiencing nicotine withdrawal. Considering all these factors, it is perhaps not surprising that relatively high attrition rates are typically found for recruits who do not exercise regularly prior to boot camp (Knox, 1998; Snoddy & Henderson, 1994; Talcott, Haddock, Klesges, Lando, & Fiedler, 1999), and for preservice smokers (Knox, 1998).

The problem of poor mental and physical preparation for recruit training can be addressed through a variety of initiatives. Mental preparation can be enhanced by measures such as study materials covering military protocol and technical preparation, videos showing first-person success stories in recruit training, some basic financial planning information (the need for which will be discussed in a later section), and mentoring by the Recruiter. All sources of information should support the message that, while some individuals may find certain aspects of boot camp challenging, it is meant to be a transforming experience that supports growth, maturity, teamwork, and a lifestyle with higher standards, rather than simply a job. Thus, recruit training is a major life transition and a path to adulthood and this requires preparation and hard work. During this orientation period, the Navy core values of "Honor, Courage, and Commitment" should also be emphasized.

While some measures along these lines are already being taken, there is further room for innovation and improvement. For example, according to a *Navy Times* story (Ramos, 1998), the Navy Recruiting District, New York, has dramatically lowered DEP attrition by having DEP

personnel spend weekends training with Navy and Marine Corps reserve units. Such exposure to Navy life may also help psychologically prepare the individual for boot camp by clarifying the purpose of rigorous recruit training. Similarly, Army Recruiters in Nashville recently began conducting monthly DEP sessions at Fort Campbell, where DEP recruits are exposed to a military work environment (High, 1999). Additional Navy DEP programs of this type should be explored to increase enlistee psychological preparation.

Physical preparation can also be enhanced in a number of ways. During the interviews for this project, several former Recruiters mentioned physical conditioning programs they had run for personnel in DEP. These programs were said to be effective in preventing later attrition, both because the recruits arrived physically fit at boot camp and thus had an easier time, and because stronger ties to the Navy had been built through ongoing interactions with the Recruiter. DEP personnel should also be encouraged to quit smoking, since smoking is forbidden in boot camp. By quitting early, a possible additional source of boot camp stress would be eliminated.

2.2 Failure to adapt to recruit training. For a variety of reasons, some recruits have extreme difficulty adapting to recruit training. While, as noted previously, many cases of poor adaptation are due to inadequate mental and physical preparation, other issues identified during interviews include low stress resistance, homesickness, malingering, and simple immaturity—conditions that are all said to underlie the high incidence of psychological attrition in basic training.

RTC statistics show that approximately 70% of boot camp attrites are identified within the first 3 weeks, suggesting that this is a critical period for adaptation to the Navy. Coincidentally, some of the senior personnel interviewed stated that many recruits with military adjustment problems could probably succeed if given help "getting over the hump" during the first few weeks of basic training, so that they could persist long enough to gain familiarity and confidence.

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The problem of recruit adaptation has been addressed by RTC officials through a program called Personal Applied Skills Streaming (PASS) which began in fiscal year 1997. The PASS program is designed to remediate problems with discipline, low self-esteem, lack of motivation, poor anger management, and dealing with cultural diversity. In fiscal year 1999, 1087 recruits were enrolled in the PASS program and 1007 completed the program (93%). Since implementing the PASS program, the number of separations for adjustment problems has dropped, and some RTC officials feel that every recruit who both completes PASS and graduates from recruit training (approximately 65% of those going through the PASS program) is a likely attrite who was saved through intervention.[4]

Another way of getting recruits "over the hump" is to simply make it harder to attrite. This philosophy was adopted by the Marine Corps in response to a recent (summer of 1999) increase in attrition. Discussions with a Marine Corps official at the Marine Corps Recruit Depot, San Diego indicated that recruits are being strongly discouraged from separating during the first 2 weeks of training, with the hope that they will be successful thereafter. This has been referred to as a "trial of training" and there appears to be some preliminary evidence that it is successful in reducing attrition. In the Marine Corps, drill instructors meet daily with struggling recruits and try to help them succeed.

The Marine Corps' policy has some similarities to a Navy policy established in late 1989 by the Chief of Naval Personnel, Vice Admiral Boorda. VADM Boorda mandated that recruits

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[4]The PASS program is but one of many RTC initiatives to reduce attrition. Some other initiatives, for example, are targeted at overcoming recruit academic deficiencies and poor physical fitness. Discussions with RTC officials indicate that an enormous amount of effort has gone into trying to reduce attrition without comprising RTC's commitment to high-quality training.

would not be discharged during their first 3 weeks of boot camp (Quester, 1999). An important question is whether these attrition moratoria actually prevent attrition or merely postpone it. A more systematic evaluation of attrition moratoriums in both the Navy and Marine Corps is needed to fully answer the question of effectiveness. Historical data, however, indicate that first-term attrition rates declined shortly after Vice Admiral Boorda's initiative. This suggests that attrition may have been prevented rather than postponed (Quester, 1999), and that early boot camp attrition is qualitatively different than subsequent Navy attrition.

Short of barring most attrition during the first 2-3 weeks of recruit training, other disincentives or obstacles could be created to make early separation less trivial for the recruit. According to discussions with military personnel, recruits sometimes quit the military by malingering, complaining of emotional strain, and deliberately failing at simple tasks. Such individuals are administratively separated (vice medically separated) without adverse information being inserted into their record, and then granted a fully-paid trip home. The Navy should strongly consider strategies to make this strategy less easy and attractive. For example, recruits without valid medical problems could be required to refund the cost of their return trip home, and even reimburse the government for uniforms, medical exams, and other expenses. In addition, an individual's personnel record should reflect the fact that they broke faith with the government.

2.3 Discipline problems. An additional source of attrition stems from lack of discipline, and disrespect for authority. Not surprisingly, the military is not the only American institution with discipline concerns. Many school systems, particularly in urban environments, have had increasing difficulty enforcing standards of conduct and academic performance. The juvenile arrest rate for all offenses reached its highest level in the last 2 decades in 1996 before declining

in 1997 (Snyder, 1998). The military cannot be immune to these broad trends, since recruits reflect American society.

For recruits with a genuine disdain for authority and regulations, there is probably little that can be done by way of rehabilitation, just as little can be done to rehabilitate habitual lawbreakers in civilian life. If a recruit commits disciplinary infractions that lead to separation, strong consideration should be given to seeking compensation for government costs (transportation, uniforms, and medical tests), along with selective use of the Other Than Honorable and Bad Conduct categories of separation. Some recruits with more minor conduct problems can probably be salvaged through a combination of RDC mentoring, encouragement, and discipline. There is concern among some Navy personnel interviewed for this project, however, that RDCs have had their ability to discipline recruits undermined by regulations preventing forceful language. Many military personnel feel that RDCs have few means at their disposal to ensure good conduct among recalcitrant recruits, although non judicial punishment by the officer in charge remains a tool.

Preventing admission of troublesome personnel is an obvious route to reducing Navy discipline problems. The GAO has noted that many enlistees are sent to training before the services have all available criminal history information (General Accounting Office, 1999). This practice contributes to the accession of unsuitable individuals and should be curtailed as much as possible. Stricter screening procedures could also be implemented. In addition to the current criminal background checks conducted by MEPS, personality testing and biographical indices should be considered for use in conjunction with current ASVAB testing programs. In particular, a large number of research studies indicate that personality tests are reasonably effective for predicting misconduct (e.g., Barrick & Mount, 1991; Hogan, Hogan, & Roberts, 1996; Ones, Viswesvaran, & Schmidt, 1993).

Finally, it would be wrong to ignore the role of the Recruiter in preventing admission of marginal performers. Several senior enlisted personnel interviewed for the project (including some with recruiting experience) stated that when Recruiters have applicants who require moral waivers because of troubled civilian backgrounds, a common strategy is to bring them in at the end of the month when the recruiting district is under pressure to make monthly recruiting goals. Under such pressures, the commander of the recruiting district is more likely to issue waivers for marginal individuals. Unfortunately, Recruiters apparently have little disincentive for this end-of-the-month strategy to enlist marginal applicants. Under the point system used for judging Recruiter performance, points are gained for successful recruits, but no points are *subtracted* for unsuccessful recruits, such as recruits who fail to graduate from boot camp.

2.4 Medical/physical problems. Approximately 25% of RTC attrition (4-5% of all recruits) is for medical reasons, including both preexisting and service-related conditions involving asthma, internal medicine, allergies, orthopedic and podiatric problems, and neurological conditions. A number of factors probably contribute to medical attrition, including poor physical conditioning prior to shipping, failure to disclose preexisting conditions at the time of MEPS medical examination, and medical waivers granted by the Bureau of Medicine and Surgery (BUMED). Failure to disclose preexisting conditions was cited as a critical problem by a number of individuals. Particularly egregious were said to be cases where individuals concealed medical problems, sought treatment for those problems after enlisting, and then finally sought separation from the service after their preexisting condition had been treated at government expense. A GAO (1997) report also noted a serious problem with enlistees misrepresenting their medical histories:

Data for fiscal year 1994 indicates that over half of all separations

for preexisting medical conditions involved the applicants'

concealment of their medical conditions. Concealment of past

medical history is made easier by the fact that applicants are

required to present medical histories only if they report past

medical problems. Applicants who wish to join the service have an

incentive to conceal such information (p. 34).

It is difficult to formulate policies to lower medical attrition (other than advocating better

DEP physical conditioning), particularly when individuals fail to disclose preexisting conditions.

An attempt should be made, however, to review all existing medical history forms with the goal

of redesigning them to be as difficult as possible to misinterpret or deliberately falsify. In

addition, policies on medical waivers should be routinely reexamined, to determine which

waivers continue to be cost-effective for the military and at what level waiver authority should be

placed.

2.5 Fraudulent enlistment. A number of military applicants fail to disclose potentially

disqualifying information such as medical conditions and past misconduct, in spite of repeated

questioning at the recruiting station and MEPS. For example, some applicants conceal previous

sports injuries that put them at risk for reinjury in boot camp, leading to medical separation and

early attrition. Additional applicants conceal preexisting mental health problems that impede

their ability to withstand the stresses of boot camp and other situations such as sea duty. And

some applicants might, for example, fail to disclose arrests, severe indebtedness, or other prior

problems. When applicants qualify for enlistment at least partly by concealing damaging

information about themselves, this is known as fraudulent enlistment. Fraudulent enlistment

becomes a source of attrition when the concealed information eventually becomes known, either through recruit self-disclosure or other means.

Self-disclosure of damaging information often occurs at the "Moment of Truth" (MOT) in recruit training. MOT is a boot camp tradition in which recruits are urged to disclose any information they should have volunteered to their Recruiter but did not, such as prior drug use, serious injuries, crimes, age falsification, unreported dependent children, and the legitimacy of their high-school diploma.[5] MOT disclosure has, in recent years, accounted for approximately 1% of all cases of boot camp attrition (less than 100 recruits per year).

Some Navy personnel interviewed for the current project stated that recruits who regret enlisting exploit MOT as a means to gain separation from the Navy. While the validity of this claim cannot easily be determined, it would seem rather simple for a recruit to fabricate an adverse history. Because MOT has been offered several times (under oath) *prior to boot camp*,[6] and because MOT disclosures in boot camp sometimes cannot be verified, the value (or cost) of the additional boot camp MOT is unclear. This issue should be reviewed by Navy officials to ensure that current policy actually serves the Navy's needs.

2.6 Screening deficiencies. According to both Navy statistics and the personnel interviewed for this study, psychological characteristics of the recruits, including mental health problems and personality disorders, play a large role in boot camp attrition. The prevalence of psychological problems is no doubt due in part to the absence of rigorous evaluation at MEPS prior to shipping. Rather than administer psychological tests, MEPS medical staff ask a small number of questions

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[5]Recruits sometimes claim that they previously volunteered adverse information to a Recruiter who urged them to conceal it. It is extremely difficult to determine the truth of such claims.
[6]GAO reports that the services provide applicants with as many as 14 different opportunities to disclose prior criminal activities to as many as 7 different recruiting, MEPS, and training officials (General Accounting Office, 1999).

during medical interviews and only those applicants who respond aberrantly are subjected to further screening. The absence of thorough psychological screening for *all* applicants is a potential deficiency that should be rectified with a concerted effort to identify and validate new psychological tests for military applicants.

The question then arises as to what applicant characteristics should be assessed. Navy personnel, when asked about psychological characteristics that are critical to Navy success, most often cited maturity, stress-resistance, social competence, willingness to follow rules, leadership potential (i.e., sense of responsibility), and motivation for enlisting. Research on these traits, along with better techniques for assessing overall mental health, would provide a good starting point for new personnel selection techniques.

2.7 Drug use. Drug dependency is an increasing element of RTC attrition. One contributor to drug-related attrition is the lack of drug testing immediately prior to shipment of personnel from MEPS to RTC. For individuals with lengthy stays in DEP, considerable time may have passed between their MEPS drug test and their actual transfer to RTC. Drug use during that time may not be detected until drug testing after arrival at RTC, where a positive test will cause immediate separation. During our interviews, RTC officials advocated the use of a "swizzle stick" test as a last step before sending the individual to recruit training. While the cost-effectiveness of this drug testing method would have to be evaluated before implementation, there does appear to be a genuine need for a drug testing program (presumably at MEPS) for individuals in late stages of DEP.

PHASE 2: SKILL TRAINING. "A" school (skill training) is a critical transition between boot camp and the fleet. Ten hour training days are the norm and students have numerous

responsibilities. While "A" school is a time of great learning and character building for most sailors, others experience (or create) a variety of problems. Table 3 shows major themes related to attrition in "A" school. Not shown in the table is the topic of academic difficulties, despite the fact that it is a somewhat common reason for "A" school attrition. The topic is omitted because academic failures, though sometimes lost to the school, are rarely lost to the Navy. Rather, academic failures are commonly reassigned to either a different "A" school or directly to the fleet.

Table 3: Reasons for Attrition From Skill Training

Issue(s)	Potential Solution(s)
3.1 Abrupt transition from recruit training 3.1.1 Abuse of off-base liberty 3.1.2 Alcohol and drug use	Provide more on-base activities. Provide more military staff (vice contractors).
3.2 Lack of motivation 3.2.1 Dissatisfaction with "A" school assignment 3.2.2 Relationship and financial problems	Clarify whether preferred school is/isn't guaranteed. Qualify student for school as early as possible.
3.3 Discipline problems 3.3.1 Disrespect for authority 3.3.2 Inability to follow rules and regulations 3.3.3 Misconduct	Continue efforts to remilitarize schoolhouses. Seek compensation for costs of recruiting and training.

3.1 Abrupt transition from recruit training. Many military personnel interviewed for this project indicated that problems occur as the Navy's young men and women depart a rigid boot camp environment and experience the relative freedom of "A" school, where Sailors are often able to leave their base, go to parties with civilians, date, and consume alcohol. A variety of problems occur, often related to off-base social activities and alcohol use, and these problems spill over into military life. Examples of common alcohol-related problems (which are prevalent in the fleet as well as "A" school) include absences and lateness, fights, spouse abuse, and drunk-driving arrests. Drug use is sometimes also a problem, although rates have been fairly low since the implementation of the Navy's Zero Tolerance program.

Navy officials, recognizing the need for greater personal discipline and ethical decision-making during "A" school, began in 1998 to remilitarize the schoolhouses to maintain military standards learned in boot camp. The college-like privileges of the late 1980s and early 1990s have apparently been terminated. According to Mayfield (1999):

> Students who formerly strolled at their own pace from one class to another now march in formation. They no longer simply retire to their barracks. Like Sailors returning to their ships, they salute the quarterdeck flag and ask "permission to board." They now take turns standing barracks watches, in duty sections much like those on a ship. Also new: weekly uniform inspections, thrice-weekly physical training sessions and dozens of hours of additional classroom instruction on naval heritage, healthy lifestyles and core values.

An additional change is that some privileges (such as wearing civilian attire) are earned rather than automatically granted. Finally, at the Great Lakes Service School Command, Sailors are encouraged to participate in character-building experiences such as community service programs. While the effect of these "A" school policy changes has not yet been documented, the new policies have been welcomed by some military personnel (Mayfield, 1999) and appear likely to yield positive results.

Young "A" school students given a taste of freedom will occasionally make bad decisions. That is because simple immaturity is a major source of problems among first-term personnel, who are often teenagers barely out of high school and away from home for the first time in their lives. Opportunities to get into trouble can be reduced, however, if Sailors have fun, cheap, and safe activities available to them on base, along with mentors and good role models.

Unfortunately, several personnel interviewed for this project indicated that few bases have quality, on-base social and recreational activities, and that existing facilities have consistently been cut back. Consequently, given the low wages of first-term personnel and the expense of many off-base activities, some believe that "getting drunk" is one of the few affordable forms of recreation available to Sailors. Navy officials should determine the types of facilities and activities that are desired by trainees and, to the extent that resources permit, attempt to provide quality, on-base recreational programs. In addition, the Navy should continue to deglamorize alcohol use through programs such as "Right Spirit." Any reduction in alcohol consumption is likely to have a number of positive side effects.

With regard to providing mentoring and positive role models, a negative trend has emerged in which the number of contract instructors has increased in the schoolhouses while the number of military staff has decreased. For example, from fiscal year 1997 to fiscal year 1999 the number of military staff at Service School Command decreased from 1106 to 884 while the number of contract instructors increased from 265 to 339. This trend dilutes other attempts to sustain the process of military indoctrination begun in boot camp, because it diminishes the number of uniformed mentors and role models and it exhausts the remaining military cadre who must absorb watchbill and collateral duties. Navy officials should increase the number of schoolhouse military staff as much as possible under current manpower constraints, and offer additional incentives for instructor duty.

3.2 Lack of motivation. Low motivation was said to be a frequent contributor to "A" school attrition (and Navy attrition in general). One specific demotivator is the failure to place Sailors into their desired "A" school/job specialty. Some Sailors feel misled by their Recruiters, whom they believe exaggerated their chance of obtaining a preferred school or misdescribed a program.

In other cases, Sailors were actually guaranteed "A" school seat but lost it for various reasons, including problems with obtaining needed security clearances, or being medically disqualified for the rating. Some actually *did* obtain their rating of choice, but later found out that it had little resemblance to their expectations. For example, many students in the Advanced Electronics Computer Field are surprised and disappointed to learn that their training involves little or no actual computer use. Whatever the reason, dissatisfaction with one's "A" school is an important source of schoolhouse attrition.

To combat this problem, the Navy should attempt to fully qualify or disqualify its applicants for specific schools while those individuals are still at MEPS. In some cases this would require that MEPS conduct more complete moral and medical screening than is presently the case, even if that means delayed shipping for the individual. The goal should be to provide each Navy applicant a clear-as-possible picture of their future Navy occupational specialty before they ship to boot camp. Also, if a recruit loses his or her "A" school guarantee because of delayed boot camp graduation, all reasonable attempts should be made to obtain a later seat in the same school for that individual.

Along with disappointment at not receiving a preferred "A" school, motivational problems also stem from a variety of personal concerns and problems, including family and relationship troubles, financial strain, and low quality of life. Since the latter types of problems also play an important part in fleet attrition, they will be discussed in a later section of the report.

3.3 Discipline problems. Discipline problems are an additional source of "A" school attrition, just as good discipline is an issue in boot camp (Section 2.3) and the fleet (Section 4.11). Some Sailors show disregard for regulations and disrespect for their supervisors. These incidents

represent a breakdown in standards, and they can lead to a series of administrative actions that culminate in separation.

Discipline in "A" school may be enhanced by recent steps (described previously) taken to remilitarize the schoolhouses, although there is currently some question as to whether the programs are being backed with sufficient resources. For those individuals who continue to exhibit poor conduct, separation may be inevitable in many cases. However, because separation is sometimes the goal of the individual engaging in misconduct, strong consideration should be given to seeking compensation for certain government costs, along with the use of the Bad Conduct discharge category of separation in certain flagrant cases.

PHASE 3: FLEET ASSIGNMENT. Table 4 shows major themes related to attrition in the fleet (both sea and shore billets). As can be seen from Table 4, most of the topics are not direct causes of attrition. Rather, fleet personnel interviewed for the project tended to emphasize issues that affect morale and performance, which in turn affect attrition.

Table 4: Reasons for Attrition From the Fleet

Issue(s)	Potential Solution(s)
4.1 Easy to get out	Supervisors must prevent problems from escalating to the point of separation.
4.2 Low pay, poor career opportunities 4.2.1 Unhappy with pay and assignments 4.2.2 Better prospects outside of the Navy 4.2.3 Lack of advancement opportunities	Make full use of Professional Development Boards. Promote to alternate rates.
4.3 Food Service Assignment	Investigate the use of contractors for kitchen work.
4.4 Family issues 4.4.1 Parenthood and childcare 4.4.2 Family separation	Advertise family counseling services.
4.5 Ship assignment 4.5.1 Stressful life on ships 4.5.2 In-port work load/berthing 4.5.3 No sea pay for junior Sailors 4.5.4 Undesirable ports 4.5.5 Hard work/long hours (High OPTEMPO)	Reduce between-deployment work load. Establish awards program for time- and labor-saving innovations, offer high-level support.
4.6 Inadequate leadership 4.6.1 Deficient mentors/commanders 4.6.2 Lack of recognition for achievements	Don't use low performers as mentors. Track attrition/retention rates by commander. Recognize Sailor achievements.
4.7 Personal characteristics 4.7.1 Unsuited for teamwork 4.7.2 Immaturity	Expand use of personality tests.
4.8 Low quality of life (QOL)	Establish requirement to turn QOL findings into remedial actions.
4.9 Indebtedness	Mandatory annual financial training for all Personnel E-1 to E-4
4.10 GENDET issues	Recruiters must provide accurate information about probability of achieving rating. Greater use of Professional Development Boards. Sea pay for GENDETs on ships.
4.11 Discipline problems 4.11.1 Lax standards 4.11.2 Disrespect for authority 4.11.3 Inability to follow rules and regulations 4.11.4 Drug use 4.11.5 Misconduct	Evaluate success of Navy Military Training. Emphasize that all leaders are role models. Assign Other Than Honorable and Bad Conduct Discharges where appropriate.
4.12 Lack of Fairness 4.12.1 Gender issues 4.12.2 Married versus single Sailors	Eliminate favoritism wherever possible.

4.1 Easy to get out. Many military personnel expressed the view that it is too easy to obtain a separation from the Navy. First-term Sailors were said to employ a number of "escape" strategies, sometimes in response to apprehension over their initial sea tour. Popular strategies were said to include suicide threats, declarations of homosexuality, pretending to have a mental disorder (like the famous Klinger character on the television show MASH), being absent without leave, and for females, getting pregnant. Cases of suicide threats and mental disorders were particularly annoying to many senior personnel interviewed, because they view such separations as easily and often abused. Several individuals could recall clusters of cases, where (for example) one individual who successfully pleaded mental health problems or homosexuality was immediately followed by numerous copycat cases.[7]

The evaluation of mental health problems presents a difficult challenge for several reasons. First, the Navy's mental health professionals (psychologists and psychiatrists) are, by training and personal preference, sympathetic caregivers rather than police officers. They do not wish to play a punitive or adversarial role in the handling of unhappy Sailors. In fact, some mental health professionals see value in their role as a pressure valve that facilitates release of individuals who are simply unhappy (though not unhealthy) in the Navy. Second, some Sailors make it clear that they will escalate their behavior unless and until they are separated. Thus, a Sailor whose initial suicide attempt involves taking 2 aspirin may take 6 the next time, followed by 10, and so on until the desired separation is obtained. Occasionally and unpredictably, the result will actually be serious injury or death, and those involved in decisions about that individual (including their Commanding Officer) must then face scrutiny themselves.

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[7]Copycat cases occur at all phases of the first term and apply to suicide threats as well as mental health symptoms. For example, one boot camp psychologist referred to a recent time period as "slice and dice" month, because many recruits had inflicted innocuous injuries on themselves (with instruments such as paper clips) in the hope that they would be separated as suicide risks.

Clearly, deliberate attempts by Sailors to obtain a separation (whether or not it is based on mental health claims) are a complex issue for policymakers. The available choices, either forcing an unhappy Sailor to stay in or allowing him or her to quit, are neither cost-effective nor conducive to the Navy's goals of a volunteer force. Though no easy solutions exist, the best approach may be to try and prevent Sailors' unhappiness from reaching the point where they will try almost any means to separate. Although it is impossible to keep all Sailors satisfied, supervisors who take an active interest in their subordinates will at least have an opportunity to determine specific issues that are undermining a Sailor's morale. For example, if a Sailor is experiencing apprehension over an upcoming sea tour, a supervisor could attempt to discuss the Sailor's concerns. Also, Navy personnel stated during interviews that many Sailors attempting to gain separation do so because of the stress of outside (e.g., nonworkplace) relationship, family, and financial problems. If a Sailor with such problems is comfortable seeking advice from his or her supervisor, the supervisor may be able to prevent the Sailor's personal problems from escalating into Navy problems.

4.2 Low pay, poor career opportunities. A large number of first-term personnel resent their low wages. Surprisingly, some individuals enlist without actually understanding what their pay will be, often because they have misunderstood their Recruiter's description of education benefits and other enlistment incentives. Sailors may become disappointed when the reality fails to match their expectations. Another compensation issue is that "sea pay," which is extra pay given to some Sailors assigned to deployed ships, is only payable to enlisted members in paygrades E-4 through E-9, warrant officers, and officers who have accumulated more than 3 years of cumulative sea duty. Thus, some Sailors below the E-4 level may be disgruntled about not

receiving the same bonuses as an E-4 despite doing similar work. Finally, some Sailors are angered by delays in receiving their enlistment bonus.

Compounding the issue of inadequate pay is the belief that, with civilian unemployment low and many jobs available, a Sailor could make more money on the outside and simultaneously have a less stressful life. Finally, junior personnel are well aware of the fact that promotion opportunities in many rates are severely limited, thus reducing their chances for advancement. For example, according to the summer 1999 Career Re-enlistment Objectives (or CREO) list, there is less than a 30% opportunity of advancing to E-4 in a number of ratings, including boatswain's mate, lithographer, photographer's mate, and personnelman. Eight regular Navy ratings are considered overpopulated in career ranks: boatswain's mate, disbursing clerk, hospital corpsman, instrumentman, lithographer, submarine machinist's mate, submarine mess management specialist, and ship's serviceman. In summary, there are a variety of reasons why first-term Sailors in certain ratings may feel shortchanged after choosing to enlist.

Some career and compensation issues raised during the study cannot be changed by the Navy without prior Congressional approval. For example, military pay rates are set by Congress, and force-size determinations made by Congress directly affect advancement opportunities. Navy leaders could, however, attempt to ensure that all junior personnel are fully aware of the benefits and opportunities available to them. For example, some commands could make more aggressive use of Professional Development Boards. According to BUPERS INSTRUCTION 1040.5 "Professional Development Board (PDB)," the PDB is responsible for the administrative review and counseling of all enlisted personnel to ensure that they are provided the opportunity to advance commensurate with their potential and consistent with Navy manning requirements. To help provide rewarding careers to Navy personnel, the PDB helps make Sailors aware of incentive programs, the detailing process, off-duty education opportunities, and commissioning

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programs. Although these resources are already available, few Sailors are knowledgeable of how the various career opportunities interact. Most Sailors rely on their professional rating seniors and designated command retention representatives to ensure they are on track. Some individuals interviewed for the project felt that PDBs were greatly underused as a tool for motivating Sailors and providing rewarding careers, although concern was also expressed about the time, training, and resources needed to run PDBs.

Regarding the shortage of promotion opportunities in certain ratings, Navy officials should regularly advise Sailors on opportunities in alternate ratings if the Sailor's current rating offers little room for advancement.

4.3 Food service assignment. When junior Sailors report for duty aboard their first ship, they are typically given an FSA that requires them to perform dirty and menial kitchen and cleanup work for approximately 120 days. In cases of manpower shortages, Sailors might be ordered to serve a second FSA tour. Numerous individuals interviewed for this project stated that an FSA tour is one of the most demoralizing experiences for Navy first-term personnel, and not just because the hours are long and the work unpleasant. Perhaps even more damaging is the clash between Sailors' pride and high expectations upon graduating from "A" school and the disappointing reality of their first assignment. As "A" school students, many Sailors worked hard to master complex technical skills and the professionalism they were told were needed in the fleet. When, instead of doing the job they were trained for, they are given a four-month (minimum) kitchen assignment, the disappointment can be severe and the effect permanent[8].

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[8]Although service week during recruit training exposes recruits to Navy galley (kitchen) work, the reality of a 4-month assignment is still a demoralizing experience for many individuals.

It may indeed be the case that, for logistical and financial reasons, the Navy must have kitchen and cleaning chores performed by junior enlisted personnel. The question then arises as to whether there is a better way to structure the experience so that it is less demoralizing. Possibly, some benefit can be gained by making sure that all ship-bound personnel understand their first assignment *well before* they report for duty, so that they are not surprised upon arrival. It is also important that supervisors help Sailors understand *why* such an assignment is necessary.

Finally, the Navy should examine the feasibility of using contractors for food service duties. Even if the use of contractors is not possible during deployments, it would be a tremendous morale-booster if contractors are employed when ships are in port.

4.4 Family issues. Naval service, with its relatively low wages and requirement for lengthy time away from home, has always placed a unique burden on families. In some ways it is as if the military member has two marriages (spouse and Navy), each of which demands time and loyalty. Not surprisingly then, family issues are frequently mentioned as contributors to attrition. Some Sailors are single parents who have trouble finding adequate childcare and thus feel overwhelmed with the responsibilities of parenthood and military service. And some Sailors, not wanting to be separated from their families, will go to extreme lengths to avoid a sea tour. In other cases Sailors' family conflicts (whether or not they are related to naval issues) spill over into the workplace and are associated with low motivation, poor performance, and unexcused lateness or absences.

Family stresses have become a growing concern for the Navy for at least 2 important reasons. First, the number of married personnel has increased tremendously over time. According to statistics from the Navy's Chaplain Resource Board (http://www.chcnavy.org), only 15% of military members were married during the Vietnam War. In 1980, 33% were married. By 1985,

44.4% were married, and recent statistics indicate that approximately 65% of current military members (including 65.7% of U.S. Navy) are married or single parents. The second source of concern is that many Navy personnel marry at a relatively young age. According to a *Navy Times* article (Ramos & Ginburg, 1997):

> Younger people may not have the skills to cope with the pressures
> of a new marriage, the military and the adjustments that come with
> them...They're also less prepared for the commitment, and more
> prone to youthful mistakes -- infidelity, for example -- that can
> irrevocably ruin the trust that marriage is built on (p. 14).

Divorce statistics have risen in conjunction with rising marriage rates. From 1980 to 1992 the divorce rates in ranks E-4 and below increased 117%. While 20% of civilian marriages (ages 18-25 years) end in divorce by the second year, 32.3% of military marriages (ages 18-25 years) end in divorce by the second year.

There is probably no single action that the Navy can take that will substantially ease family stressors among young Sailors. Deployments are essential and will probably remain high for the foreseeable future, forcing couples into unwanted separations. Wages will remain relatively low, causing financial stress. Many Navy personnel will probably continue to marry at a young age, partly because of loneliness. Discouraging such marriages is politically unacceptable and would further aggravate manpower shortages, although there may be value in premarital counseling that realistically describes the financial hardships and other hurdles faced by young Navy couples.

To help couples cope, the Navy should make sure that its personnel are aware of existing counseling services, and also ensure that spouses are made to feel a part of the Navy community. In addition, supervisors should show concern for their personnel and be approachable in the event of problems.

4.5 Ship assignment. Many personnel feel that poor quality of life on ships contributes to attrition. The deficiencies cited by personnel on one aircraft carrier include inadequate living/sleeping quarters, bathrooms in disrepair, broken exercise equipment, inadequate workout facilities, and excessively long food lines. Other negative factors with ship assignments include lack of sea pay for E-3 and below (see discussion in section 4.2), a decrease in port visits, and less liberty during port visits. Regarding the latter, several senior Navy personnel stated that the number of desirable ports that Sailors visit has diminished substantially over the last decade, thus taking away much of the fun and adventure that traditionally compensated low-paid Sailors for the hardships associated with ship assignment.

A further hardship on ships is the difficult work and long hours. According to a number of those interviewed, as well as recent newspaper investigations (e.g., Jaffe & Ricks, 1999), 16-hour workdays are common aboard ship. Though shipboard life has always been demanding, Sailors' work loads have become extraordinarily high in recent years as missions have increased while force size has shrunk. Since 1992, the amount of time that Navy Sailors spend at sea has risen more than 25% because of peacekeeping missions in Bosnia, Kosovo, Haiti, and the Persian Gulf. At the same time, recruiting and retention shortfalls recently left the Navy with a total of 18,000 fewer Sailors than it says it needs (Jaffe & Ricks, 1999). Due to these manpower shortages, and the fact that a number of additional Sailors cannot deploy due to reasons such as childcare, shipboard personnel are forced to take on extra duties and work longer hours.

Perhaps even worse than the frequency and work load of sea tours, however, is the continued demands on Navy personnel when their ship is not on a deployment. Because of training requirements, ships still spend extensive time at sea between deployments. And work loads remain high even when ships are in port, because of the Navy's demands for frequent inspections, watchstanding, and ship maintenance. Thus, even when Sailors are technically

"home," they often have little personal time to spend either with their families or doing things they enjoy. The long work hours also interfere with individuals' long-term goals, such as taking night courses toward obtaining a college degree. While high work loads *during* deployments can be accepted by Sailors, such demands in-between deployments are often the source of greatest frustration.

During recent years the Navy has initiated a number of measures to reduce the work load associated with ship assignments, particularly when the ship is in port. For example, plans are under way to investigate rust-proof coatings that decrease the frequency of painting, and to hire up to 1000 civilian workers to do painting and other chores (Peniston, 1999a). In addition, there are Navy plans to purchase (over the next 3 years) several hundred million dollars' worth of scrapers, sprayers, power-screwdrivers, and other tools to make shipboard work easier (Peniston, 1999b). Other initiatives would decrease the frequency of watchstanding, drills, inspections, and administrative work.

Navy officials have also implemented several initiatives to reduce training burdens. For example, in June 1999 the aircraft carrier Constellation left home for a scheduled 6-month deployment during which its final at-sea training--the joint task force exercise--was done en route to the western Pacific rather than a month or 2 before departure. This marked the first time a carrier performed the key training exercise after crew members had bid farewell to their families and friends. The Constellation crew spent three fewer weeks than normal at sea for *predeployment* training, according to a *Navy Times* article (Fuentes, 1999), because the training was conducted while underway. The benefits to Sailors include shorter work days in port, weekends off, and a big morale boost.

The Navy should vigorously pursue additional methods for reducing crew work loads between deployments so that Sailors can, as much as possible, live rewarding lives with

reasonable work hours and sufficient free time for family and friends. To encourage this trend, Navy personnel should be provided with incentives (e.g., financial awards) for developing time- and labor-saving ideas for the fleet. Aggressive use of beneficial suggestion programs is one possible route. Commanders who implement such ideas should be recognized and themselves rewarded whenever possible. Because some efforts to work more efficiently may go against longstanding Navy traditions, high-level support is essential for worthwhile initiatives to succeed.

4.6 Inadequate leadership. A number of individuals suggested that a variety of junior and senior leadership problems contribute to attrition. For example, it was felt that many young Sailors lack good mentors. When a Sailor reports for his or her first ship tour, he or she is often given an orientation by a junior petty officer selected as a mentor because they are not particularly good at other assignments. In such cases, the new arrival's first impressions of his or her ship are influenced by a petty officer/mentor who is not respected and who may also be prone to criticize the command. The effect on the new arrival's morale can be immediate and highly negative.

Other examples of leadership problems include officers who demotivate subordinates by complaining excessively about the Navy or their current or previous command, failure of leaders to recognize achievements by subordinates, and leaders who remain too distant from their subordinates and thus seem unapproachable. Leaders who are aloof from their people are also poorly positioned for preventive measures in the early stages of personnel problems. Some senior personnel stated that Navy leadership has become more impersonal in recent years, partly in response to concerns about fraternization. Whatever the reason, Navy leaders are often not aware of their Sailors' problems until those problems become serious.

An additional perceived leadership flaw is that some leaders let their own personal ambition drive major events for their command. Some commanding officers are said to put their crews through excessive drills and inspections for the sole purpose of obtaining awards and personal recognition. Morale can be damaged if, for example, a crew feels that it is saddled with an excessive work load primarily to satisfy the personal ambition of the commander. This may provide a partial explanation for what Hewett (1984) called the "Skipper Factor." In Hewett's thesis for the Naval Postgraduate School he found, through statistical analyses, that some commanding officers may precipitate an actual 40% increase or decrease in reenlistment rates among Sailors. To obtain this shift with monetary incentives, pay rates would have to be adjusted 20% (Hewett, 1984).

Finally, many Sailors complained about what they viewed as an excessively authoritarian leadership style on the part of some supervisors. Authoritarian leadership is said to frequently aggravate the generation gap between senior personnel and first-term Sailors, because today's young Sailors are not as accustomed to authority as their predecessors. New Sailors are prone to chafe and argue when supervisors bark orders without providing explanations.

In recent years the Navy has implemented leadership training courses that are mandatory for all hands at specific career milestones. Sailors attend the courses upon advancement to E-5, E-6, and E-7. Successful completion is required prior to advancement to the next paygrade. Officers also attend leadership courses. In spite of the training there will continue to be individuals with deficient leadership skills, and it is important that they be identified, counseled, and not allowed to mentor junior personnel until all performance deficiencies have been corrected. To identify deficient leaders among commanders, statistical tracking of attrition and reenlistment rates should be investigated, although such a commander tracking system would have to be carefully

designed to not exaggerate the importance of extraneous factors, including random fluctuations in retention rates, age of ships, types of missions, material condition, and operational tempo.

4.7 Personal characteristics. Attrition is, of course, not completely a function of Navy leaders and work environments. As earlier sections have made clear, attrition is often caused by characteristics of the individual that make him or her largely unsuited for military service. Immaturity is a problem among first-term Sailors just as it is a problem among civilians of the same age. Other individuals may not be suited for working in a team environment. They may be handicapped by a dislike of teamwork, or even an inability to form friendships. Unlike the civilian world, there are few ways in the Navy for socially inept individuals to avoid their shipmates and prevent personal embarrassment. Yet another problem stems from personnel who are dishonest, manipulative, or who have poor self-control. Such individuals can have a destructive impact in the work environment and thereby damage both morale and performance.

Personality tests, if given as part of the enlistment process, could help to identify applicants who are psychologically unsuited for military service. Such tests are widely used by private industry to screen out undesirable applicants, and could make a substantial impact on attrition if adopted by the Navy.

4.8 Low quality of life. Satisfaction with the military is often heavily influenced by factors such as adequacy of family housing, educational programs, childcare, health care (especially the Tricare system), commissary and exchange privileges, and Morale, Welfare, and Recreation programs. Unfortunately these factors, often referred to as "quality of life" issues, are believed to be deficient by a number of Navy personnel. This sense of dissatisfaction, obtained through interviews conducted for the present project, is confirmed by QOL surveys that the Navy has

conducted over the years. Wilcove (1996), for example, found that only 45% of enlisted personnel were satisfied with overall QOL in the Navy.

A GAO (1998b) investigation of attrition also found that QOL issues were important, although GAO used an unusually broad definition of QOL:

> During interviews with 254 first-term enlistees and 41 supervisors, GAO was told that the official reasons listed for separation may not accurately reflect the true reasons that enlistees separate early. In fact, quality-of-life issues may lie at the root of many separations. These issues include a perceived erosion of medical and retirement benefits, advancement opportunities, and pay, coupled with long hours and difficult and frequent deployments (p. 7).

GAO also noted:

> There is currently no formalized mechanism for prioritizing the concerns of first-term personnel who are discharged early or allowing the services to direct their attention to improving quality-of-life issues that will have the most effect on reducing the attrition of first-term personnel (p. 46).

Some of those interviewed emphasized that QOL issues are particularly pressing for single Sailors, who experience more restrictions against off-base living in comparison with married Sailors. Single Sailors who live on ships are said to have difficulty finding privacy or places to study, have little opportunity for recreation, and often feel that they are assigned more work than their married peers simply because they are more accessible at all hours. Because living on a ship

is unpleasant for many Sailors, some individuals enter into "sham marriages" solely to acquire off-base housing privileges.

Navy officials are, by all indications, sensitive to QOL issues among personnel. According to the *Navy Times*, officials are discussing new programs for improved housing, faster transportation of personal goods, new programs for children, improved fitness centers and libraries, and reduced phone rates (Jowers, 1999), along with increased access to childcare and college courses. In addition, Navy engineers are trying to improve shipboard QOL by designing roomier berthing spaces aboard future ships (Peniston, 1999c). Nevertheless, some interviewees felt that the Navy's approach to QOL issues is reactive rather than preventive, because the approach seems more geared to solving glaring problems rather than improving Sailors' lives as a worthwhile goal in its own right.

The Navy should continue to conduct and carefully monitor QOL surveys, but it should also emphasize the need to turn findings into action.

4.9 Indebtedness. A number of first-term personnel become financially overextended through excessive borrowing and spending, and these financial problems can either directly or indirectly lead to attrition. Indebtedness can become a direct cause of attrition if the Sailor defaults on one or more financial obligations and creditors contact the Sailor's command; failure to pay debts is a violation of the Uniform Code of Military Justice. Indebtedness can become an indirect cause of attrition if it is part of a set of personal and professional problems that collectively overwhelm the individual, leading to stress, depression, and problems at home and in the workplace.

Though financial problems take a variety of forms, the collective impact is considerable. According to a report from the Military Family Institute (Luther, Garman, Leech, Griffitt, & Gilroy, 1997):

- More than 123,000 Letters of Indebtedness are processed in the Navy every year.

- An average of nearly 99,000 bad checks are written on the Navy Exchange System, and another 75,000 bad checks are received at the commissaries each year.

- An estimated 35,000 Navy service members had their wages garnished in 1995.

- Forty-three percent of active-duty personnel report facing problems paying monthly bills.

- Approximately 4,300 service members in the Navy filed for bankruptcy in 1996, with the Navy as the creditor.

- On average, 11.2% of enlisted members refused reenlistment and 5.86% of officers discontinued services due to financial reasons.

- Of all the security clearances revoked, an average of 60% of these involved financial reasons.

- Since the introduction of the Navy Exchange Card Program (NEXCARD), approximately 23,000 accounts with $20 million outstanding have not been collected.

There are multiple contributors to indebtedness in first-term personnel. Many first-term Sailors have little experience with budgeting and a poor understanding of how high interest rates can dramatically increase the cost of borrowing money. Because of their youth and lack of experience, Sailors are often vulnerable to scams and predatory marketing practices from local businesses that offer "instant credit to E-1 and up" at exorbitant interest rates. Consequently, some Sailors buy new automobiles, big screen televisions, unnecessary life insurance, and

furniture and other items that burden them with years of oppressive debt. One particular scam was described in the *Navy Times* (Maze, 1995):

> Advertisements in official and unofficial military newspapers in Virginia promise that car dealers will provide free rides to their dealership for any service member. The surprise comes when the dealerships are located as far away as Delaware, and there is no ride back to the base-unless you buy a car and drive yourself....officials said they have seen people return from out-of-state dealers with old, used cars and monthly payments larger than they would have on most new cars. Many purchase contracts are laden with interest rates of up to 44%, unnecessary life insurance policies and maintenance agreements that require a car owner to return to the dealer for repairs.

The Navy has taken a number of steps to increase Sailor financial education, including money management training in boot camp. Navy officials have also taken steps to improve financial counseling at Family Service Centers. Many of the Navy's financial education programs are voluntary, however, and thus not likely to reach all personnel in need of counseling. The Navy should require that all personnel E-1 to E-4 attend mandatory annual financial training sessions. The success of these training programs should be carefully evaluated and the programs should be regularly revised/updated to remain timely.

In addition, all personnel should be encouraged to establish local bank accounts before shipping to recruit training, and to settle past debts at time of enlistment.

4.10 GENDET issues. Many individuals who enter as general detail Sailors expect to easily "strike" for rating (i.e., pursue a rating through independent study) once they are in the fleet, and then be transferred to the "A" school for that rating. In some cases their Recruiters apparently assured them that, while the rating they wanted was currently closed, it would very likely open in the near future through the strike process. In reality, however, it is not always possible for GENDETs to successfully strike for the rating they want. In some cases there are simply no empty seats in the schoolhouse because all seats have been assigned to new recruits. In other cases the command where the Sailor is assigned cannot afford to lose that individual, and so a release is not granted. And sometimes a Sailor's work load is such that there is little time for independent study or other steps needed to strike for a rating. For a variety of reasons, then, some GENDET Sailors begin to feel trapped without a professional identity in a situation they did not desire.

Attrition rates have historically been several percentage points higher for GENDET personnel than for other Sailors, probably due in part to morale issues. But in truth the Navy, because of a shortage of GENDET personnel, cannot accommodate all the individuals who want to strike for ratings. To solve the problem of GENDET attrition, the Navy must strive for the right balance between meeting the professional needs of its Sailors and meeting its own manpower goals. As part of that effort, officials must be vigilant about Recruiters who exaggerate the ease of striking for a desired rate. If possible, success rates for strikers should be determined and presented to applicants at the recruiting station. Also, as stated in Section 4.2, Professional Development Boards should be more aggressively used as a means of helping GENDETs and other personnel obtain career advancement. Finally, strong consideration should be given to providing sea pay to all personnel below E-4 assigned to ships. This could serve as a morale-boosting tactic.

4.11 Discipline problems. Misconduct and drug use are among the most common reasons for fleet attrition. Not surprisingly, then, a number of Sailors interviewed for the current project stated that discipline problems contribute to attrition in the fleet. When asked what types of misconduct were common, a pattern of lateness and absences was mentioned most frequently, followed by disrespect for and disobedience of superiors. In some cases these incidents were said to reflect character flaws in the individual (see Section 4.7, Personal Characteristics). In other cases, the Navy itself is believed to contribute to poor discipline through lax standards and lack of enforcement of proper military respect and bearing. For example, uniforms are sometimes worn sloppily, improper haircuts and incorrect forms of address are ignored, and junior personnel who fail to salute their superiors are rarely reprimanded. In addition, some supervisors are said to exhibit favoritism based on race or gender.

Many personnel are dissatisfied by what they see as lax standards, and there is evidence that the Navy is beginning to reemphasize discipline and military bearing through a renewed emphasis on Navy customs, courtesies, and traditions. In boot camp, instructors are teaching expanded courses on military history and young officers are being assigned as "salute targets" to give recruits added experience in that practice, according to the *Navy Times* (Burlage, 1999b). New programs are designed to reinforce the discipline learned in boot camp and to build up Sailors both professionally and personally. One program is called Navy Military Training (NMT), formerly known as the Basic Military Training Continuum. NMT spans the new Sailor's first year in the Navy (after completion of recruit training) and is designed to impart the knowledge and skills that are essential to military life. NMT is a training module of General Military Training (GMT), under the Leadership Continuum. NMT topics include Navy alcohol and drug policies, prevention of sexual harassment, healthy lifestyles, and various topics related to conduct and bearing.

The programs initiated to instill bearing and discipline in first-term Sailors are likely to have a positive impact, if they are backed with sufficient resources and leadership support. Nevertheless, there will continue to be Sailors whose conduct is detrimental to good discipline. As has been recommended elsewhere in the current report (e.g., Sections 2.3 and 3.3), a more extensive use of Other Than Honorable and Bad Conduct discharge procedures may be appropriate in cases of misconduct, particularly when the misconduct is part of a calculated attempt to leave the Navy. As GAO (1998b) has noted:

> granting honorable discharges to enlistees who deliberately seek ways out of fulfilling their service commitments may simply encourage others to do likewise....GAO believes that some enlistees could be motivated to remain in the service if they knew that there were no easy ways out of their contracts and that there were serious negative consequences associated with behavior or performance that warranted discharge (p. 8).

Finally, efforts to improve discipline in the fleet will largely be wasted if negative role models are present. Good discipline must both be taught to young Sailors *and* exemplified by more senior individuals. A double standard will create cynicism and ultimately create more attrition rather than less.

4.12 Lack of fairness. Many personnel interviewed for the project stated that morale is often affected by a perceived lack of fairness in the treatment of different groups. On the positive side, the vast majority of personnel believe that ethnic discrimination has been largely banished from today's Navy, with the lone exception being the fairly widespread perception of favoritism between Filipino service members. On the negative side, numerous respondents (both male and

female) expressed the view that sexual politics and gender inequities are pervasive in the Navy. Specifically, a number of individuals stated that many male supervisors are not comfortable disciplining female Sailors and therefore treat them more leniently than males. Some supervisors are also said to be intimidated by threats of vengeful sexual harassment complaints. Also, both male and female service members expressed the view that many women get pregnant partly to avoid sea duty, and that high current rates of pregnancy increase the work load for other service members.[9] Thus, a variety of gender-related issues erode the sense that the Navy is fair to all its Sailors.

Another area where unfairness is perceived is the favoritism that the Navy is said to show married couples and parents, versus unmarried and childless Sailors. As mentioned in Section 4.8, first-term Sailors who are childless and single experience restrictions against off-base living, unlike their married counterparts. Such restrictions can lead to a low quality of life, since shipboard living is relatively spartan and uncomfortable. In addition, Sailors with children are sometimes unavailable for duty or unable to deploy, which increases the work load for other service members. All of the preceding issues create a sense of preferential treatment toward married couples and parents. While the direct effect on attrition is impossible to determine, any issue that contributes to resentment towards the Navy is something that should be examined and, if possible, reduced or eliminated.

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[9]Several of those interviewed (again, both male and female) claimed to personally know female Sailors who became pregnant to avoid sea duty.

CONCLUSIONS

Attrition is a complex problem that has plagued the armed forces for decades. It is both a drain on readiness, because it creates manning shortages that harm morale and performance, and a drain on finances that could be spent on supplies, repairs, and other important items. The magnitude of the problem is such that even a 10% reduction would produce savings of millions of dollars per year. It is incumbent upon the services to pursue these cost savings by seeking solutions to early attrition of first-term enlisted personnel. This fact is, of course, already widely recognized within the Navy and by Congress. During the course of the current investigation, it became clear that the Navy has taken a number of valuable initiatives involving leadership training, courses to improve the conduct and military bearing of Sailors, financial counseling services, QOL initiatives, reductions in burdensome chores, and the improvement of recruit training through innovations such as Battle Stations and various remedial programs.

Nevertheless, current attrition rates remain high, and interviews with Navy personnel make it clear that there are many potential sources of attrition that remain to be addressed through new programs and policies. The problem areas can to some extent be grouped into two main areas: Organizational issues and personnel selection issues.

Organizational issues. Navy personnel interviewed for the current project commented on a number of organizational issues, as documented in previous sections. Because these issues are so diverse (encompassing leadership, fairness, advancement opportunities, pay, QOL, and many other topics) no single solution is possible. Indeed, the job of prioritizing organizational problems is itself extremely complex and is probably best accomplished through an attrition (or retention) task force.

One organizational issue *not* sufficiently discussed thus far is the handling of the transitions that military personnel face (i.e., the transitions from civilian life to recruit training, from recruit training to "A" school, and from "A" school to the fleet.) In each case, Navy personnel are sometimes thrust unprepared into a new environment with different rules and expectations. For example, many civilian military applicants know little about what to expect when they enter recruit training. And for many Sailors fresh from "A" school, food service assignment duty aboard their first ship is a bitter surprise and disappointment. If these individuals were better oriented to the nature and purpose of their responsibilities at each stage, adaptation could go more smoothly and some attrition could be reduced.

Personnel selection issues. The military services experience costly personnel losses for psychological problems and misconduct. Based on all the evidence assembled for the current research, better psychological assessment is one of the most effective actions that the military could take to reduce attrition. In addition to improving MEPS screening for overall mental heath, interviews with Navy personnel suggest that new testing programs should focus on the assessment of applicants' maturity, stress-resistance, social competence, willingness to follow rules, and motivation for enlisting. Though the preceding are, for the most part, aspects of normal personality rather than psychiatric disorder, there are levels that are incompatible with military life and place the person at increased risk for attrition or the development of psychiatric problems. An examination of the research literature on these topics indicates that some have been more thoroughly studied than others.

Maturity. It is somewhat ironic that, while lack of maturity is one of the most commonly cited reasons for problems in first-term military personnel (many of whom are teenagers), few

research studies (civilian or military) have specifically examined psychological maturity per se. As a consequence, there is apparently no widely accepted "maturity test" that could be used on military applicants. Indeed, the concept of maturity itself has no consensus definition; in the context of discussions with Navy personnel, it appears to encompass a sense of personal responsibility, self-restraint, high moral standards, and the ability to take problems in stride and maintain a long-term perspective in difficult situations.

Cloninger, Svrakic, and Przybeck (1993) are among the few psychologists to address the topic of maturity and discuss its measurement. Cloninger et al. distinguished between dimensions of *temperament*, which they argue are heritable and emerge in infancy, and dimensions of *character*, which are said to reflect maturity and influence personal and social effectiveness. Two key aspects of character (and maturity) are said to be self-directedness (e.g., self-determination, willpower, the ability to admit faults, delay of gratification, and taking responsibility for one's actions) and cooperativeness (e.g., being helpful, compassionate, and forgiving), both of which have been shown to increase with age (Cloninger et al., 1993).

For the assessment of job applicants, patients, and other individuals, Cloninger, Przybeck, Svrakic, and Wetzel (1994) developed the seven-factor Temperament and Character Inventory (TCI), which has both short (140 items) and long (240 items) forms. Both forms have self-directedness and cooperativeness dimensions, which Cloninger et al. have linked to maturity. These 2 measures may be of value in future work in personnel screening, particularly since they may also be sensitive to the presence of personality disorder (Bayon, Hill, Svrakic, & Przybeck, 1996; Griego, Stewart, & Coolidge, 1999; Mulder, Sullivan, Bulik, & Carter, 1999; Svrakic, Whitehead, Przybeck, & Cloninger, 1993). Since personality disorder is a common reason for separating Navy personnel, the use of the TCI as a screening device for maturity may therefore have secondary benefits by simultaneously reducing personality disorder rates.

In conclusion, the TCI may provide a useful starting point for research on the usefulness of maturity indices as predictors of military attrition. Because of the TCI's length, however, briefer measures should be developed as part of any research program.

Stress-resistance. The ability to withstand stress was frequently cited by Navy personnel as important to success in the military (particularly in boot camp) and as a factor that prevents attrition. The comments of Navy personnel are supported by certain research studies. For example, Vickers, Walton-Paxton, Hervig, and Conway (1993) reported that stress reactivity in military recruits was significantly related to attrition. Vickers et al. used personality measures to classify recruits as stress reactive (R+), stress neutral (N), or stress resistant (R-). Attrition from basic training was related to stress reactivity status, with R+ recruits having above-average attrition and R- recruits having below-average attrition.

There is extensive research literature on stress tolerance and related concepts, often published as studies of hardiness, which refers in part to an individual's ability to withstand adversity (Kobasa, 1979). Studies show that individuals who score higher on hardiness measures, such as the Dispositional Resilience Scale (Bartone, Ursano, Wright, & Ingraham, 1989), are more resistant to illness and depression, have fewer somatic complaints, are less likely to have fearful thoughts when faced with threat or challenge, and are less likely to use drugs and alcohol (Funk, 1992; Maddi, Wadhwa, & Haier, 1996; Manning, Williams, & Wolfe, 1988). In addition, studies performed on nurses suggest that nurses with high levels of hardiness experience less emotional exhaustion or burnout (Costantini, Solano, Di Napoli, & Bosco, 1997; Simoni & Paterson, 1997).

Hardiness scales may also have value as general mental health indices. Maddi and Khoshaba (1994), for example, found that hardiness scores were negatively related to a number of Minnesota Multiphasic Personality Inventory (MMPI) scores showing psychopathological tendencies, supporting the hypothesis that hardiness may reflect a common denominator of mental health. Similarly, Ramanaiah and Sharpe (1999) found that subjects scoring high and low on hardiness differed in their scores on several psychopathology scales. Florian, Mikulincer, and Taubman (1995) found that hardiness instruments administered to 276 Israeli Army recruits predicted mental health at the end of a demanding, 4-month combat training period. Thus, there could be considerable value in investigating the use of hardiness scales for personnel screening in the U.S. Navy.

Tools to measure stress resistance are, of course, not limited to hardiness scales. Another seemingly promising measure is a subset of 17 items from the Recruit Temperament Survey (RTS; Waite & Barnes, 1968). The 17 items form a stress-linked cluster reflecting nervousness and emotionality. This cluster has been shown to predict attrition of Navy recruits for reason of inaptitude, enuresis, or character and behavior disorder (Hoiberg, Hysham, & Berry, 1973). Similarly, a small number of anxiety-linked questions from the Health Opinion Survey were found to differentiate Navy psychiatric patients from other Sailors (Gunderson, Arthur, & Wilkins, 1968). Further research on the RTS 17-item cluster, the Health Opinion Survey, and other anxiety measures may significantly improve the Navy's ability to predict the portion of personnel attrition that stems from poor stress-resistance.

Social competence. Discussions with Navy personnel suggest that numerous individuals either attrite or suffer low morale because they have difficulty working within groups and forming friendships. Moreover, one official who has worked extensively with recruits has even

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suggested that poor social skills may be a reason that high school dropouts have such high attrition rates in the Navy (i.e., some individuals who were socially ostracized in high school and subsequently quit may also be ostracized in the military and attrite). While it may be objectionable to suggest that individuals be screened for sociability, applicants could at least be strongly advised that the military is a team environment that affords little privacy and requires the ability to work comfortably with other individuals.

One former Recruiter interviewed for the project stated that he always asked applicants about their hobbies to determine their suitability for teamwork. Applicants who spent all their time in solitary activity were asked to consider whether their interests really matched what the military requires. Along these same lines, there may be value in using biographical measures to determine previous participation in group or team activities. In addition, research on the personality trait Agreeableness (Costa & McCrae, 1992) may have some predictive value in determining whether a minimum level of social comfort and skill is necessary for teamwork (Mount, Barrick, & Stewart, 1998) and military life.

Willingness (or ability) to follow rules. Many Navy personnel interviewed for the current project stressed the importance of following day-to-day rules and orders. In this light, new research on military personnel selection should place particular emphasis on Conscientiousness, a personality dimension that reflects self-discipline and willingness to work hard and follow rules. There is already extensive evidence that Conscientiousness tests (and similar instruments such as integrity and dependability tests) can play an important role in the selection and placement of military and civilian personnel (e.g., Hogan, Hogan, & Roberts, 1996; Hough, Eaton, Dunnette, Kamp, & McCloy, 1990; Ones, Viswesvaran, & Schmidt, 1993). For example, in their analysis of the relationship between personality dimensions and job performance, Barrick

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and Mount (1991) found that Conscientiousness showed consistent relations with all job performance criteria for all occupational groups studied. Conscientiousness scores are among the few indices that, when used in conjunction with a general cognitive ability score, provide greater validity than that afforded by cognitive ability alone (Schmidt & Hunter, 1992). In addition to predicting job performance, Conscientiousness is also correlated with other important outcomes, such as delinquency and related behavioral problems (John, Caspi, Robins, Moffitt, & Stouthamer-Loeber, 1994).

Impulsivity is another aspect of personality that influences propensity to follow military rules. Impulsivity can be viewed as a personality characteristic that predisposes individuals to develop long-term, recidivistic antisocial behavior and delinquency. For example, White et al. (1994) found that both cognitive and behavioral impulsivity were significantly and positively related to delinquency when it was measured cross-sectionally, as well as when it was measured across time. They also found that impulsivity strongly differentiates serious delinquents from other delinquents in early adolescence. One widely used measure of impulsivity is the Eysenck Impulsiveness Scale (Eysenck, Easting, & Pearson, 1984), a self-report questionnaire consisting of 23 items that assess impulsive behavior (e.g., "Do you often do things without planning?").

A number of other concepts seem quite related to Conscientiousness and impulsivity. Gough (1994), for example, has referred to a *socialization* trait, which he defines as the tendency to comply or to not comply with the rules of a society. Socialization is often assessed with the Socialization Scale of the California Psychological Inventory (Megargee, 1972). Similarly, Navy studies have shown that *social conformity* predicts the effectiveness and performance of first-term personnel (Hoiberg & Pugh, 1978; Vickers, Hervig, & Booth, 1996).

Motivation for enlisting. Regarding motivation for enlisting, a number of individuals

interviewed for this study stated that applicants with a genuine interest in the military are more

likely to succeed than applicants who enlist simply to escape a bad home life. Such views are

consistent with research on Army recruits by Martin (1995), who found higher attrition rates in

individuals whose enlistment was motivated by personal problems. Although it is not practical to

be skeptical of an applicant's motivation for enlisting under the current difficult recruiting

conditions, questions about the motivation for enlisting may have value if recruiting grows

easier, as may happen due to an ongoing increase in the youth population.

Final comments on applicant screening. Research on the preceding areas could help the

Navy substantially improve its applicant screening, leading to a reduced frequency of personnel

problems along with lower attrition. One step that should *not* be taken, however, is to adopt a

system that is exclusively designed for psychiatric diagnosis or categorization. While diagnostic

systems can be used to determine which recruits currently have a psychological disorder, they are

ill-suited for predicting which asymptomatic recruits will develop a psychological disorder or

behave inappropriately as a consequence of boot camp or other service-related stressors.

The vast majority of psychological tests used for *predictive* purposes rank order examinees

along one or more continuous dimensions of ability or personality, rather than within a discreet

category. The Armed Forces Qualification Test (AFQT), for instance, is an example of a test

score that rank orders individuals along a continuum of ability from a low of 1 to a high of 99.

Tests yielding continuous scores are much more powerful tools than tests producing a diagnosis,

if the goal is personnel selection and performance prediction. Relationships between traits and

performance are usually linear (e.g., the smarter one is the better one does), a reality reflected by

continuous scores but not by diagnostic categories. In addition, continuous scores allow cutoffs to be adjusted in response to changing recruiting pools or Navy manpower needs.

Final Remarks. Attrition is obviously a difficult problem to improve. Moreover, the recommendations offered in the report, which were developed largely as candidate recommendations, may in some cases be impractical or in need of extensive study. Nevertheless, because reduced attrition could free up significant financial resources and produce a more motivated, ready, and capable fighting force, the war on attrition must be continued, albeit one step at a time.

Several limitations to the current study should be noted. First, the sample size (N = 100) was relatively small, which could limit the representativeness of the views expressed despite our attempts to cross-reference and confirm across various sources of information. Second, the perceptions of those interviewed may not accurately reflect reality on certain issues. Disconnects between perceptions and reality on important issues, however, may themselves be problems that should be brought to the attention of Navy officials.

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14. ABSTRACT (maximum 200 words)

More than 18% of Navy recruits leave the service within the first 6 months, and more than 37% are discharged before the end of their first term. By reducing the attrition rate, the Navy could slash costs for recruiting, training, equipment, and related expenses. The purpose of this research was to identify major individual and organizational factors that cause attrition, and to develop a set of interventions or recommendations for reducing attrition. Interviews were conducted with Navy personnel to determine perceptions of the types of individuals who are most likely to attrite and the organizational factors that increase attrition. Results from the interviews were then combined with other data, including Navy documents such as official instructions and press releases, government technical reports and briefings, media sources such as *The Navy Times*, and a variety of unofficial Navy surveys and meeting notes that were volunteered by respondents during interviews. Overall results and recommendations are reported separately for boot camp, "A" school, and fleet attrition, which together represent the major stages of a Sailor's first term of enlistment.

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